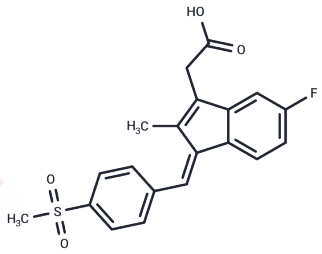
Data Sheet (Cat.No.T23403)

TargetMol

Sulindac sulfone

Chemical Properties



CAS No. : 59864-04-9

Formula: C20H17FO4S

Molecular Weight: 372.41

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Sulindac sulfone is a metabolite of the nonsteroidal anti-inflammatory drug sulindac. Sulindac sulfone is an inhibitor of aldose reductase (IC50 =367 nM).
Targets(IC50)	Reductase,COX
In vitro	In vitro: Sulindac sulfone treatment also inhibited PGE2 production by HCA-7 cells with an IC50 of 360 mmol/L. Sulindac sulfone at 100 mmol/L reduced 6-ketoPGFα by 29.2%. Sulindac sulfone reduced the colony number of HCA-7 and HCT-116 with an EC50 of 50 mmol/l. Sulindac sulfone significantly decreased the expression of total cellular β-catenin (50% of control), pro-caspase 3 (49%), cyclin D1 (51%), and PPARδ (65%) in SW480 cells. No significant alteration in pro-caspase 3 or β-catenin expression was found in HCA7, LS174, or Caco-2 cells treated with sulindac sulfone. A dose-dependent reduction in TCF-mediated transcriptional activity was also observed in SW480 cells [1] [2].
In vivo	In vivo: Sulindac sulfone is capable of reducing the incidence, multiplicity, and tumor burden in the azoxymethane AOM rat model of colorectal cancer. Sulindac sulfone had no effect on the growth of HCA-7, HCT-116 xenografts, and cancer cell xenografts [1].

Solubility Information

Solubility	H2O: < 2.54 mg/mL,Sonication is recommended. DMSO: 50 mg/mL (134.26 mM),Sonication and heating are recommended. Ethanol: > 3.83 mg/mL,Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.69 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6852 mL	13.4261 mL	26.8521 mL
5 mM	0.537 mL	2.6852 mL	5.3704 mL
10 mM	0.2685 mL	1.3426 mL	2.6852 mL
50 mM	0.0537 mL	0.2685 mL	0.537 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Zheng X, et al. The molecular basis for inhibition of sulindac and its metabolites towards human aldose reductase. FEBS Lett. 2012 Jan 2;586(1):55-9.
Kitamura S, Tatsumi K. In vitro metabolism of sulindac and sulindac sulfide: enzymatic formation of sulfoxide and sulfone. Jpn J Pharmacol. 1982 Oct;32(5):833-8.
Piazza GA, et al. Sulindac sulfone inhibits azoxymethane-induced colon carcinogenesis in rats without reducing prostaglandin levels. Cancer Res. 1997 Jul 15;57(14):2909-15.
Sauter A, et al. Sulindac sulfone induces a decrease of beta-catenin in HNSCC. Anticancer Res. 2010 Feb;30(2):339-43.